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Grumman To Start Stopgap A-6 Wing Program

The U.S. Navy has informally asked Grumman to build 10 metal wings for the A-6 Intruder. The work will be worth $20 to $25 million. However, it doesn't solve the problem caused by the major delay in getting the Boeing A-6 composite wing program off the ground.

"It's really an insurance policy to see how rapidly Boeing can get back on schedule," says Grumman A-6 program vice president Dan Collins. "The real impact of the situation is what's happening to the fleet because there are more and more grounded planes."

Of the Navy's 340 Intruders, 51 are grounded due to severe metal fatigue, while 119 are restricted to flying maneuvers that put forces of less than three times the pull of gravity on the wings.

In addition, the Navy grounds two planes every three months for expended wing-life fatigue and puts flight restrictions on another four. The problems compound as available planes have to be used more often to meet readiness requirements.

"The original Grumman wings are well within specs," says A-6 production director Jerry Lester. Since the Grumman A-6 was introduced in 1960, the plane's weight has increased 4,500 pounds with the addition of new all-weather attack equipment.

In the mid-1980s, the Navy realized that many A-6 wings would reach the end of their service life before replacement planes would enter the fleet. It asked for bids on replacement wings for fleet aircraft. Boeing bid a composite design; Grumman offered an updated metal wing.

Boeing won the $1.2 billion contract in 1985. The first composite test wing was supposed to be delivered in November 1987, and they were to get to a rate of six wings a month by mid-1988. To date, one wing has been delivered and it is incomplete.

Aluminum Finale. *Grummanites at Calverton work on Intruder number 184, scheduled to be the last of the metal-winged production A-6s. Grumman will deliver the plane to the Navy sometime this month. The next production A-6E awaits a composite wing. (Photo by Gerry Costello)*

Boeing first had problems with the layers of composite material; they were separating. Recently another problem was discovered: the wing fasteners were too short. The covers can't be sealed, so fuel leaks.

The 10 new Grumman wings will be put on fleet Intruders. They will be the same design as those found on the fiscal year 1986 aircraft, the last of which will be delivered this month.

"In March 1988, the wing line was shut down in Buildings 2 and 3 in Bethpage. Seventy people will be reassigned to the wing program beginning in September 1988," says Lester. Once new wing production begins it will be about 18 months until the first one is delivered.

The problems at Boeing also affect Grumman production plans, says Collins. The last metal-winged A-6E, number 184, is being delivered this month. The next production plane was to have gotten the Boeing wing. Without those wings, new Intruders can't be finished. "We're looking at slowing down the building of large assemblies just to economize," he says. Some Grummanites who do the final assembly work at Calverton will probably have to be assigned to other programs until the composite wing problems are sorted out.

Grumman may have another solution to the Navy's problem until the composite wings are ready. Lester says that a contract is expected in October for a program called IAFC-601. It's a fatigue test of an enhancement that can be made to the wings of Intruders now in service.

"We would cold-work 1,000 holes in the lower cover of a wing inner panel," Lester explains. "We believe this would extend the fatigue life of the current wings, and therefore, the Navy could lift restrictions on the planes."

By forcing a slightly larger fitting into each hole, two things happen. First, the sudden expansive force on each hole "cold works" the metal, making it harder. Then, the reinforcing ring gives the hole a truer surface.

Once the holes of the test panels are reworked, the wing assembly will be put into a test fixture and put through a long-term fatigue test in Building 5 in Bethpage. The goal is to test the wing to the equivalent of 10,000 hours of stresses from catapults, simulated missions and carrier landings.

"We could have results in eight or nine months," says Lester. "The enhancements are just a Band-aid. They would move the problem a few years to the right. That would help the Navy. But the new wing program has got to happen."■

Maiden Flight. *During the first test flight of the A-6 digital systems development (DSD) aircraft, the plane's flight control, propulsion and navigation systems were checked out. See page 2. (Photo by Gerry Costello)*

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Job Attrition Rate Is Higher Than Expected

Back on March 9, Chairman John O'Brien announced that the company had to reduce its work force by 2,600 by year's end. So far, the net reduction is approximately 2,200.

Since the beginning of 1988, 2,800 Grumman people have left the company. Of that number, 575 retired. Around 1,300 Grummanites quit their jobs. In addition, the number of job shoppers has been reduced by 600. "While we had originally announced that we would have to lay off approximately 700 people, to date 410 have been laid off," says Bob Foster, director of Personnel. "Because of a higher than expected level of voluntary terminations, we have not had to lay off as many as expected."

While the size of the work force has declined, people have been hired in some critical skills areas, plus in the quick turnover areas such as maintenance, clerical and secretarial. In addition, some new grads were also hired this summer. Taking into account these new hires, Grumman's work force has had a net reduction of 2,200.

"We've been able to hold layoffs to a minimum by substantially reducing the number of job shoppers and part timers," says Foster. "Also, we've had a rather high rate of attrition this year. Unfortunately, voluntary terminations don't always occur where there is a surplus of skills. Therefore, the layoffs are expected to continue."

To reach the company goal, another 400 jobs must be eliminated. The number of people who will be laid off depends on several factors, such as how the overall business fares, how many people retire and how many elect to leave the company voluntarily. In addition, certain departments have received more work than originally projected, while other areas have been adversely affected by uncertainties in government funding.

"Usually, the attrition rate slows as you get closer to the end of the year," says Foster. "People don't normally leave for new jobs or retire near the holidays. We should have a clearer picture of the reduction-in-force by October."

The areas affected are Aircraft Systems, Aerostructures, Data Systems and Electronics Systems on Long Island. In addition, Aircraft Systems' Milledgeville Operations in Georgia laid off 40 people this spring; Melbourne Systems Division in Florida let 38 people go. Aircraft Systems' Stuart Operations in Florida has been able to meet its manpower targets through attrition.

People have been selected for the reduction-in-force based on the company's skills requirements and their own performance. Those who are laid off receive severance pay and help in preparing a resume, as well as help in finding a job.■

Getting Ready For The Second Time. *On August 22, the A-6 digital systems development (DSD) aircraft successfully completed its first test flight. At Calverton, Doug Halsey, plane captain (L); Jim Rice, flight line electrician (C); and John Stewart, an instrumentation technician, prepare the plane for its second flight. (Photo by Gerry Costello)*

Third A-6 Prototype Begins Flight Tests

CALVERTON, L.I., August 22 — The crystal-clear blue sky formed a perfect background for the successful first flight of the third A-6F prototype now used as a digital systems development (DSD) aircraft.

The two-hour flight's main objective was a first in-flight check of the plane's avionic, propulsion, and flight control systems. "Similar tests are done in the lab as well as numerous ground checks," says Dick Feyk, assistant A-6 development program director. "However, the first flight displays how the systems will perform in the air."

Everything went as planned. "Engines, airframe, hydraulics and the other vehicle systems performed flawlessly," says Feyk. "The avionic systems checked out as well. However, there is still a lot of development work ahead of us in that area."

The DSD aircraft will house the systems originally destined for the A-6F and the currently proposed digital upgrade "G" version A-6.

The improvements include new radar, night attack capability, improved missile defense and communication systems and a digital cockpit.

While funding for the A-6G has not yet been approved, the Navy has allocated funds for the DSD program as well as a VIP (Vehicle Improvement Program).

Under the VIP, airframe changes will be made to the first A-6F prototype aircraft number 166 to include new Pratt & Whitney engines, Boeing composite wings, and some modifications to the plane's fuselage. The VIP aircraft is expected to fly its first flight in the Spring of 1990.

"The DSD and VIP aircraft are stepping stones towards the 'G' version aircraft," says Feyk. "We'll use the technologies from both these aircraft if the A-6G is funded in 1990."■

Technical Services Expands Role At Whidbey Island

Technical Services has expanded its EA-6B simulator support role at Whidbey Island.

The Naval Training Systems Command awarded a $5.6 million contract to the division's Operations and Maintenance group. Grumman will provide operation, maintenance and supply support for the EA-6B Weapon System Trainer, the Team Tactics Trainer and the Signal Practice Trainer at Whidbey Island starting October 1. This is a one-year contract, but it has four one-year options.

Technical Services was the incumbent contractor for two of the trainers and won over Hughes, Singer Link and AAI, the incumbent, for the work on the third trainer.■

Accurate Labor Charging Is Everyone's Responsibility

On August 30, Grumman Chairman John O'Brien sent a letter to all Grumman employees reminding them of the importance of an accurate labor charging system.

"In order for us to continue to compete successfully, we must accurately track our costs," said O'Brien in the letter. "Our labor charging system is at the heart of that process, and its integrity is a vital part of our company's reputation. Indeed, falsifying labor charges to government contracts is a violation of federal law and can lead to fines, imprisonment, and the suspension of the company as a government contractor."

All Grummanites are required to certify that their labor charges are accurate. The declaration printed above the signature boxes on all timecards reads: "I certify that the labor charges are correct." This means that every employee and his or her supervisor has the responsibility to ensure that the job numbers and hours charged are correct.

Any willful, improper job charging must result in the violator's dismissal and may, in addition, result in prosecution. If you have reason to believe that labor costs are being charged to the wrong job number, report it to your supervisor or Howard Dunn, chairman of the Business Ethics Committee, (516) 575-3810.

Motorcycle Safety

Grumman Security would like to remind all employees who ride motorcycles to wear their helmets. The same local traffic regulations that apply outside the facility must be followed inside the gates.

First Of Many. *This Calverton flight was the first of over 200 tests for the new F-lll Avionics Modernization Program kit. (Photo by Gerry Costello)*

USAF Testing F-111 Update Kit

The U.S. Air Force has begun flight testing an F-lll updated with a Grumman Avionics Modernization Program (AMP) kit. Over 200 flight tests will be conducted at McClellan Air Force Base in Sacramento, California.

The Grumman kit contains new navigation and communication systems for the cockpits of F-111 and EF-111 aircraft. Grumman will produce enough kits for 157 F-111A's, F-111E's and EF-111A's. The Air Force flight tests will still be under way when the first production kit is delivered to Sacramento in December. Most of the installations will be done by Air Force and civilian personnel in Sacramento, and a few installations will be done in England.

The first test kit was installed by Grummanites at the flight test center at Calverton. On May 16, flight crews and engineers from Sacramento Flight Test and the 2874th Test Squadron arrived at Calverton. The first flight, with pilot Capt. Frank Litaker and weapon systems officer Capt. "Buck" Rogers at the controls, took place on May 20. The Air Force team left on June 14 to get ready for the June 29 start of the Sacramento flight test program.

In addition to flight tests, Air Force teams in Sacramento also tested proof kits on "A" and "E" version aircraft to see how well all the hardware fit.

"We expect to have the first flight of the EF-111 kit in January of 1989," says Grumman's program director, Bill Egner.

The AMP program now is just past its peak, says Egner, when there were about 225 people assigned to the effort. Grumman's work is being done done in Bethpage and Melville, Long Island, and Electronics Systems' Salisbury, Md., Operations. Grumman is teamed with TRW on this program.

"We had high expectations for the AMP and it was even better than we expected," says Maj. Tom Tschorke, who led the 13-member Air Force team.

The system was always ready to fly, an important indication of the quality of Grumman's work. "AMP is a reliability and maintainability (R and M) modification to start with," Tschorke explains. "The goal was to make it easier to maintain and, at this point, the R and M appears better than we expected."

Tschorke also pinned some verbal medals on the Grumman flight test support teams.

"The aircraft was in great shape at all times," he says. When the often poor weather delayed takeoffs, Tschorke says that "everyone at Grumman would hang around for late debriefs. We had extremely good support out of everybody at Grumman."■

Space Systems Designing Next-Generation Particle Beam

A team led by Grumman Space Systems Division's Energy Systems Group won a four-year contract from the U.S. Army Strategic Defense Command to develop a new technology neutral particle beam. The $5.8 million, first-year effort requires Grumman to design the Continuous Wave Deuterium Demonstrator (CWDD). That will be followed by a three-year, $45.8 million option for the construction and operation of the demonstrator.

The Grumman team includes Culham Laboratories of the United Kingdom Atomic Energy Authority and the Los Alamos National Laboratory. "It's very unusual and probably the first time for Grumman that a national laboratory is supporting us as a subcontractor," says Bob Papsco, the CWDD program manager.

Already, 24 Grummanites — three of them at Princeton, New Jersey, where Grumman has a contingent on the Tokamak fusion reactor project — are working on CWDD. "During the first year design phase there will probably be 35 people on the program at its peak," says Papsco.

The demonstrator will be housed in a 15,000 square foot building at a location that Grumman and the Army will choose within the next several months.

Space Systems' Energy Systems group recently won a contract to help Los Alamos National Lab build a ground test neutral particle beam accelerator (GTA). CWDD is a more advanced type of neutral particle beam.

CWDD will generate a continuous stream of high energy particles, unlike GTA, whose beam is fired in short bursts, called pulses, with a long time between each pulse.

Another difference is that CWDD will use deuterium as its "ammunition." GTA is designed to use protons.

The CWDD program could be the beginning of the next generation of weapons that would continue to grow in importance to the U.S. National Defense.

This is the first major weapon system technology concept development contract that Grumman has been awarded by the U.S. Army Strategic Defense Command, Huntsville, Alabama.■

Grumman, Chinese Firm Sign Technology-Sharing Agreement

On August 25, Grumman and China's Shenyang Aircraft Corporation signed an associate contractor agreement for work on the Peace Pearl program.

The Peace Pearl is a project to upgrade the radar and fire-control system aboard the Chinese F-8 fighter. Grumman began working on this project with Shenyang Aircraft last year.

The associate contractor agreement enables the two companies to share engineering drawings and other data. It was signed by Pete Oram, president of Grumman Aircraft Systems Division, and Tang qiansan, president of Shenyang Aircraft Corporation.

"We sign associate contractor agreements with many other companies, but this is the first time a U.S. aerospace company has signed one with a firm in the People's Republic of China," says Ralph Siegel, program director. "For this reason, a ceremony was in order."

Tang qiansan was accompanied on his visit to Grumman by Ma chenglin, vice director of China's Ministry of the Aerospace Industry; Lu huimin, deputy chief engineer for the nation's Foreign Liaison Office; and several other company and government officials. In addition to the ceremony, they spent several days touring Grumman facilities.

The 20-page associate contractor agreement spells out how data must be protected by each company. At China's request, the U.S. government has classified the Peace Pearl as a secret program. The agreement also details the tasks each company will perform at various stages of the program, including flight test.

Although commonplace, signing this document is nonetheless a crucial step in any cooperative program. Grumman is developing a kit that will be installed by the Chinese in their own country. There has to be a perfect match.

"It's like technology transfer in reverse," says Siegel. "The Chinese are providing us with all the documentation and drawings of their aircraft and how their associated systems work."■

Exchange. *Qiansan (seated, L) and Oram (R) sign the Peace Pearl agreement. Also at the ceremony were: (standing, L-R) Zhang dehui, Shenyang senior engineer; Xu weiwu, senior engineer for China's Foreign Liaison Office; and Andy Pao, Grumman International regional director..*

TQP Action Teams Tackle Three Troublesome Topics

Grumman's Total Quality Process (TQP) continues to grow. As of September 1, 20 action teams have been formed.

Recently the first two action teams in Business Operations were formed. Their topics: adherence to procedures and management complexity. An Aircraft Systems team from Product Operations is concentrating on the problem of rework.

All three action teams are finished brainstorming and have entered the fact-finding stage. Here's what they've found out so far.

No Rework. *This Total Quality Process team in Aircraft Systems is trying to solve the rework problem in Product Operations. After narrowing down the possible reasons for rework, the team chose poor paperwork as its first target. (From L to R) Roger Carpenter, Don Reuss, Ralph Mastrole, and Bob Reinig. (Photo by Rich Breunig)*

Scrutinizing Rework

One Aircraft Systems quality action team is studying the problem of rework in Product Operations.

At the first meeting, the team came up with 22 reasons for what they believe causes rework. Those 22 were narrowed down to four: Bad paper—engineering drawings and operations sheets are unclear; workmanship; shop floor control of parts; and skills training. Of the four, the group decided to start by conquering the bad paper problem.

"After an engineer completes a drawing of what the part should look like, a methods operations sheet is put together," says Ralph Mastrole, team leader and deputy general manager of the Parts Fabrication Center. "This document shows the person building the part how to assemble it so it comes out looking exactly as the engineer intended it to. If that op sheet is incorrect, the part comes out wrong and that means rework."

After some detective work, the team members were able to identify their problem statement. They found the operations sheets are often incorrect, confusing, incomplete, or non-descriptive. But why?

Upon further investigation, the group found that many of the operations sheets were put together when the planes were designed more than 20 years ago. "Back then operations sheets were just sketches," says Mastrole. "A lot was left open to the interpretation of the mechanic building the part. Nowadays, the aircraft are a lot more complicated and the instructions need to be more specific."

The paper problem became even more apparent when some subassembly work was transferred from Building 2 to Houston. "The mechanics here were building those parts for years. They had the op sheets memorized," says Mastrole. "But when the work went to Houston, it was difficult for the new team to interpret the instructions. We should be able to move assemblies anywhere without a problem."

The group has laid out its goals: the parts should go together and conform to the drawings; the parts should be in stock on schedule; the operations sheets should illustrate the shortest way to build the part in the least amount of time at the lowest cost; and no rework.

"We're not sure yet what the best method will be for reaching these goals," says Mastrole. "But we've only had two meetings and we've certainly come a long way so far."

Forgotten Procedures

A team from Business Operations is searching for reasons why carefully prepared procedures for doing business in that department are not being followed.

There are many procedures that cover tasks from proposal development to manpower planning and budgets.

After brainstorming, the team made a list of 16 reasons why they think the procedures are not being followed. That list was narrowed down to four principal categories: the procedures are written only to satisfy a specific customer and then do not apply to everyone else; the procedures are vague, complicated or wrong; there is a lack of management enforcement of the procedures; and there are too many procedures to follow.

The team has decided to focus on the lack of management enforcement first. That area was chosen because of the feasibility of a solution, the team having sufficient control over the problem to make corrections and its urgency and importance.

"If the problem still persists after looking at this theory, we'll look at another," says Dom Granite, manager of the Facilities Business Office and the team's leader. "We will look at as many potential causes of the problem as necessary to come up with the answer."

Organizational Dynamics, Inc., the company that developed the Total Quality Process, stresses the importance of not trying to attack too much at once.

"Adherence to procedures is mind boggling because there are so many," says Granite. "We don't know if there are 200 procedures not followed or just five. By breaking the problem down, we are getting a better look at it."

Although still in the fact-finding stage,

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Scrutinizing Rework

Aircraft Systems

Goal: No rework.

Team Leader: Ralph Mastrole, deputy general manager, Parts Fabrication

Team Members: Andy Ballow, director, Material Ops; Roger Carpenter, manager, Quality Engineering; John Culleton, deputy director, Vehicle Engineering; Al Johannsen, program manager, ILS Support; Bob Reinig, section head, Liaison Engineering; Donald Reuss, director, Production Control, Bethpage Ops; Harvey Beringhause, manager, Methods, Manufacturing Technology Ops.

Forgotten Procedures

Business Operations

Goal: Adherence to procedures.

Team Leader: Dom Granite, manager, Facilities Business Office

Team Members: John Debois, manager, Corporate Estimating, Production Programs; Joseph DeMeo, manager, Information Resources; Ray Duffy, manager, Operations Planning and Analysis; William Rooney, director, Business Planning and Controls; Joe Wilson, director of contracts; Robert Yezek, director, Facilities Engineering.

O'Brien Tells Long Island Association:

'We Represent A Million Votes — We Can Bring L.I. Together'

On Wednesday, September 7, Grumman Chairman John O'Brien addressed the Long Island Association. Excerpts from his speech follow.

Last week I saw a bumper sticker that I can't seem to get out of my mind. It said, "Don't follow me — I'm lost." As a matter of fact, I'm occasionally startled to hear someone talking about Grumman as if we were the ones to follow; as if we determine the future of Long Island. The truth is, of course, that we don't. We, Grumman, don't — but we, members of the LIA, may very well determine that future. That's a big opportunity, and a big responsibility — and I think it's time that we stepped up to it.

A while ago, someone gave me a book by W.D. Wetherell called "The Man Who Loved Levittown." It's a terrific story. It's fiction, but most of us probably know someone just like the main character.

His name is Tommy DiMaria and he's a young man, just back from World War II. He lives with his wife and kids in his parents' crowded apartment in Brooklyn, and he wants a better life.

So he takes his father-in-law's car out from Brooklyn, and by the end of the day he has a job at Grumman and he's given Big Bill Levitt an $83 deposit on a brand new house. He stands in an open field, watching houses go up around him. He has escaped from Brooklyn and found an Island of opportunity. There's so much clean air and open space, he swears he can see waves breaking on the rocks at Montauk.

The years go by, and Tommy and his neighbors add on to their Levittown houses. They help each other build patios and swingsets, they start Little League teams for their kids, and they help put a man on the moon.

But the times change. His life becomes more complicated, Long Island gets more crowded and bureaucratic, his friends retire and move away because they can't afford to live here anymore. He's unwilling to change, and he hates what has become of his perfect life and his perfect town.

So Tommy DiMaria takes a can of gasoline and sets his house on fire.

Well, now I've ruined the ending for you. But even if you and I are not quite ready to watch the whole thing go up in smoke, I think we all know the frustration of watching our perfect Island become so much less than it can and should be.

I guess this book made me think a lot about my own experience on the Island. I was nine years old in 1938 when my family moved out of the city. We moved 'way, 'way out to the country. To Cold Spring Harbor in Huntington. And it *was* the country then. Route 110 was a country road, cutting through miles of farmland. When I was a little older, there was a drive-in movie there. That's gone, too — probably an office complex or a parking lot now.

It would have been impossible back then to imagine that there would be traffic jams every day on that little country road. Or that Huntington's beaches — or any beach on Long Island — would become unsafe and have to be closed down.

Our Island is still beautiful. It is still an Island of opportunity. But we have to start taking better care of it.

The modern history of Long Island really began with the construction of Levittown at the end of World War II. Thousands of young people came out to find job opportunities, houses they could afford, and quality education for their children. Back then, except for the people who worked at Grumman and Republic and other local companies, most of the work force left the Island in the morning for their jobs in the city.

We don't have a regional authority with the necessary clout — just 680 little ones to say 'not in my backyard.'

But Long Island is no longer New York City's bedroom. Today, 80 percent of the Long Island work force is employed on Long Island. And more than 90 percent of those people drive to work. However, the Long Island Railroad gets five times as much money for improvements as the roads and highways do.

It cost $164 million to electrify the railroad out to Ronkonkoma — an improvement that benefits about 10,000 commuters a day, and cuts 20 minutes off their commute. It would cost about the same to add a fourth lane to the Long Island Expressway, and that would benefit 250,000 people a day.

After the war, each wave of development that moved east established a new governmental structure. Each village, town, school district, water district and special purpose district developed local autonomy. Today, Long Island has 680 governmental entities empowered to raise taxes — that can't get out of their own way when there is a regional problem to be solved.

We are paying electric rates that are among the highest in the nation, and it looks as though they're going to get a lot worse.

Shoreham is a fiasco that all of Long Island will pay for — forever. We're looking at rate increases of five percent a year for the next 10 years. That increase proposal doesn't fully include the more than 805 megawatts of new generating power we will need to replace Shoreham. We will also need a set of 230-megawatt stations to handle the excess load during hours of peak demand. They'll cost $90 million a copy or more — and they're not factored into the proposal, either.

Now, LILCO had a deal with former Town of Babylon Supervisor Anthony Noto to build one of these stations. The site was near a railroad station and a car-crusher — not a bad place for a power plant. But the deal didn't survive the election of a new supervisor.

So LILCO approached the Town of Riverhead with a plan to put the peaking station at the Northville Industries tank farm. Handy, because fuel would be delivered by tankers; there would be no additional trucks on the road. So far, the Town of Riverhead is saying no.

A Grummanite's paycheck goes for electric bills that are 73 percent higher than the national average.

Then LILCO went to the Town of Brookhaven with a plan to put the station right next to Shoreham. Also a handy spot, because at Shoreham the transmission capability is already installed and paid for.

Well, LILCO had been paying taxes on Shoreham for years. LILCO is suing Brookhaven to get that money back. The Town of Brookhaven said, "Sure, you can build a peaking station here as long as you drop that lawsuit." LILCO, of course, can't do that.

Recently, however, Port Jefferson village gave LILCO a preliminary go-ahead for plans to install two gas turbines at the existing power station there. Good for Port Jefferson! And then, big coincidence, Brookhaven decided that a tax-paying installation next to Shoreham might not have to be held hostage to the lawsuit after all.

Electric power is a huge regional problem — but we don't have a regional authority with the necessary clout — just 680 little ones to say, "not in my backyard."

We all remember last year's infamous garbage barge. Before the crisis, Islip Supervisor Frank Jones was trying to get the State's permission to expand the landfill while they were building a recycling plant. The State said no, so the barge was floated all over the place, looking for a home. While it was making headlines — and punchlines — the garbage barge created an

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Calling For Unity. *A few weeks before his address to the Long Island Association, Chairman John O'Brien posed in front of a Grumman E-2C Hawkeye for the LIA's program booklet. (Photo by Rich Breunig)*

O'Brien Urges LIA To Take Action

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impression of an unreliable community, running out of control, unable to take care of itself.

Now Suffolk County has a new law that regulates the use of video display terminals. New York Telephone said it would stop hiring computer operators in Suffolk, and would close an office with 125 people in Babylon. Northwest Airlines canceled its plans to move a few hundred jobs to Suffolk.

Taken together, these issues project an image of a community that is hostile to business. Parochial decisions by local governments are lacking in vision and imagination. We don't make it easy for companies to do business on Long Island: we make them jump through hoops.

Every time Grumman opens a plant in another state, everyone seems to get upset. The press and our own people want to know: Is Grumman leaving Long Island? Our answer is always "no." We have a loyal and skilled work force here, exceptional suppliers, and hundreds of millions of dollars in buildings and equipment. Those things aren't portable.

Because those things are so important to us, we will even expand our research and technology centers here. We have tripled our net asset value on Long Island since 1980 to make our work here more productive. But when we have a new manufacturing start, we have to do significant parts of it off Long Island.

We now have 33,000 employees. Ten thousand of them are in Georgia, Florida, Texas, Maryland, California and other locations. That's more than double our off-Long Island population just 10 years ago — and the trend will continue.

Just take a look at electric rates. We are LILCO's largest private customer. With some state power thrown in, Grumman pays industrial rates of 8.5 cents per kilowatt hour. In St. Louis, Missouri, McDonnell Douglas is paying less than three cents — and Boeing, in Seattle, pays less than two cents.

But our overall costs also reflect what we must pay people to maintain their standard of living — and a Grummanite's paycheck goes for electric bills that are 73 percent higher than the national average.

We have a facility in Milledgeville, Georgia. The price of an average three-bedroom house in Milledgeville is about $50,000; the property taxes are about $600 a year. The average three-bedroom home on Long Island is $186,000, and property taxes are about $3,000 a year.

Now, young people in Milledgeville in their first jobs can't afford that $50,000 house just yet. In the meantime, there are plenty of attractive apartments for around $325 a month.

For too many young people on Long Island, a house has become an impossible dream. They can't afford it today, and they can't imagine that it will ever be within their grasp.

So what happens? We get young recruits in for an interview, and they like the job, they like the opportunities, they even like the salary. But when they find out how far that paycheck won't go, they're off to see McDonnell Douglas.

It has always been a point of pride for Grumman that our turnover was the lowest of the 12 major aerospace companies. People came to work for us, and they built their whole careers here. That has changed. Turnover is now a problem for us. And it's the people under 35 who are leaving at the highest rate.

That's bad news for Grumman, and it's bad news for Long Island, too. Our people are not just going to other jobs in the area — they are leaving the area. And Long Island cannot afford a mass exit of its young people.

It's the people under 35 who are leaving at the highest rate.

For Grumman, there are other good reasons to locate some of our businesses off Long Island. For one thing, it broadens our political support in Washington. But the main reason is that we must remain competitive, and that means we have to put some of our work in areas where costs are lower.

I've been chairman of Grumman for a little over a month now; I was president for about two years before that. One of the things I've put in place is something called the Total Quality Process. It doesn't just focus on making a better product, although it will certainly have that effect, too. It talks about the way we do our jobs, how we work with each other. I want our people to change their way of thinking.

I go to meetings with employees, and I get "How come Grumman..." questions. Such as "How come Grumman takes so long to order parts?" or 'How come Grumman is so bureaucratic?" And my answer is, you tell me. We are Grumman — and if something isn't working right, we have the power to fix it. If it's taking too long to process paperwork, find out why. Fix the problem! We've got the power — we're all in charge. This is our company.

And I think the same is true of Long Island. We *are* Long Island — all of us who live here, and work here, and raise our families here. We've got the power. We're in charge. This is our Island.

And where do we start? I think we have to maintain our manufacturing base of high technology companies. We already have more than a thousand; we have a big stake in their success and growth, and we have to make sure they survive. However, I think it's a mistake to try to attract more manufacturing companies to Long Island. Our roads and our environment can't handle it.

We can still encourage the development of corporate headquarters, design centers, and other "think" jobs. We can design and plan things here — but we have to build them somewhere else. Engineering firms, architectural firms, fashion design, computers, accounting firms, brokerage houses, insurance — these are the sorts of businesses we should be encouraging. But these are staffed by people who can live and work anywhere they want — so we have to keep this the kind of place that they would find attractive. That means protecting our environment, and investing in cultural resources.

My predecessor at Grumman, Jack Bierwirth, is quite active now in a number of environmental groups. One of them, the Nature Conservancy, just managed to save 19 acres in Nassau County — the last vestige of the Hempstead Plain. That land will be preserved for our children's children, and Jack tells me a certain plant was found on it that was believed to have been extinct.

We have a number of small music and dance groups, and they're all struggling to survive. They need and deserve the LIA's support, because they make this Island a better place to live and work.

We need concert halls and theaters. People shouldn't have to travel into Manhattan to see a play or a ballet. And we, the Long Island Association, should develop and promote cultural events and facilities here.

We absolutely need a fourth lane on the Long Island Expressway.

On a somewhat more mundane level, we also have to do something about unclogging our roads. We absolutely need a fourth lane on the Long Island Expressway, and the LIA should push even harder for it.

And here's something else we ought to be doing: the LIA should be howling about the power line under the Long Island Sound. For years, Grumman and other LIA companies have been calling for the Marcy-South transmission line, which would make inexpensive hydroelectric power from Canada available to us.

Well, the Marcy-South line is now in place — but we need a line under the Sound to connect us to it. And all that the Power Authority plans to build is one line! Now, I don't know how that looks to you — but it seems to me that Long Island could use more than one extension cord! And it seems to me that all of us in the LIA ought to work together to make sure that we get it!

Today we have two new, young county executives — why aren't they working more closely together on regional solutions to our regional problems? Why can't you and I make them understand that their personal futures depend on some cooperative, regional thinking today?

We certainly don't lack the people to staff some bi-county working groups. Grumman is generally supposed to be Long Island's biggest employer. Don't believe it. If I tell you that we have about 24,000 people here, what employer would you suppose outnumbers us four to one?

We are Long Island — all of us who live here and work here, and raise our families here.

The government.

Our county, state and federal governments employ 80,000 people on Long Island. If you throw in the people employed in our towns and villages, the number approaches 90,000. That means we have about one government worker for every ten Long Island wage earners.

We must be the most governed people outside of the Soviet Union.

Do we really need that much government service? Why can't we focus these people on solutions to our urgent regional problems? Because you and I don't even speak from a regional point of view ourselves. Most of us are members of the LIA, but we may also belong to any one of a dozen or more business groups on Long Island — all of whom have their own public policy agendas.

By organizing the business community into a welter of specialized groups, we're fragmenting the constituency that we should be representing. Instead of speaking for our 3,700 members, our 400,000 employees and our million voters, and using our clout to get the politicians' attention, too often we speak as 800 members of some subset of the LIA.

There should be one public policy agenda for Long Island. It should be set by the LIA, and all of us should support its objectives.

We represent a million votes. We can bring Long Island together. We can move toward a sensible future. We can make a difference. We have the power, if we decide to use it. Let's use it before it's too late.■

Update On Three TQP Teams

(Continued from page 4)
the team is considering working with many people directly involved in the implementation of the department's procedures. Why were certain procedures written? Are they getting the intended results? These are some of the questions the team will ask.

"This will help us to zero in on why the problem exists," says Granite. "After investigating, we may find that our only problem is the lack of or insufficient training in following procedures.

"The process is really giving us a chance to step back and take a good look at ourselves, assess our performance and take an active part in helping to strengthen the company," says Granite. "It's good to see management from the top down acknowledge that there are problems — and accept the responsibility for their role in contributing to these problems."

Management Layers

Are there too many managers? Are the managers too busy to manage? How many managers should there be for what amount of people? These are some of the questions a team is asking about the management complexity in Business Operations.

After one meeting of brainstorming and listing all the different reasons for management complexity, the team decided to zero in on management layering — how many managers are there.

"Before we can attempt to solve any problems, we have to look at the management ratio — how many managers do we have and who and what are they managing," says Mary Lou Caminiti, director of Operations, and the team leader.

As the team continues to gather information, it will study historical data — what were the ratios 10 years ago? It will also look at comparison data — how many managers does the department have compared to other areas?

The team will also look at the criteria for becoming a manager. "That's a lot more complicated than it sounds," says Caminiti. "There are many different reasons why people become managers. For example, if a new proposal begins in Aircraft Systems, the program director may request a manager of contracts or a manager of estimating. A person is loaned to that program from our department. If the company loses the contract, the individual returns to Buiness Ops as a manager."

The policies of promotion and demotion are also on the agenda for this team. However, this is not a new subject in Business Operations. "The department has always believed that if someone is doing their job - reward them — and if they're not, take them out of the job," says Caminiti. "The team will look into whether or not this philosophy is being followed."

On the other hand, the group does not want to eliminate career paths within the organization. "There have to be places for people to move up to," says Caminiti. "The team will work on organizing the department so it can offer those positions."

The group agrees that the main objective is to determine if the management structure within the department is efficiently organized to get the job done," says Caminiti. "We had one instance where it took 24 days to get a proposal signed off with the appropriate signatures. When it's that complex, everyone suffers." ■

Management Layers

Business Operations

Goal: Unravel departmental management complexity

Team Leader: Mary Lou Caminiti, director, Ops

Team Members: Erwin McCalla, vice president, Facilities Management; George Smith, director, Resourse and Business Development; Tom Cunniffe, staff assistant to vice president, Facilities Management; Tony Piazza, contract manager, Advanced Development, ILS Support; Ron Regan, manager, Program Planning and Controls; Jay Winding, director, Corporate Estimating; George Turney, director, Facilities Ops.

Unit Values

The Employee Investment Plan's unit values as of July 31 (compared to June 30) were:

Equity Fund
4.329 (down from 4.373)

Fixed Income Fund
6.156 (down from 6.177)

Guaranteed Income Fund
2.835 (up from 2.811)

Company Stock Fund
$21.68 (down from $21.87).

Looking For Answers. *While one team in Business Ops wrestles with management complexity in its department, another works towards adherence to procedures. (Top, L to R) Joseph DeMeo, Dom Granite, Ray Duffy, Bill Rooney, John DeBois, and ODI facilitator Dan Anderson; (at L) Tom Cunniffe; (below, L to R) Erwin McCalla, George Smith, Tom Cunniffe, Mary Lou Caminiti, and Tony Piazza. (Photos by Rich Breunig)*

Readership Survey

We don't want to do all the talking. We'd like to know what you think about the things you see in these pages. Your comments, suggestions and complaints are welcomed. Please take a few minutes and give us your opinions.

Article	Great	Good	Poor	Didn't Read
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Total Quality Process (P. 4)	☐	☐	☐	☐
O'Brien and LIA (P. 5)	☐	☐	☐	☐

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GrummanWorld

September 9, 1988

(Photo by Bob Settles)

Fasten Your Seat Belt

In Bethpage's Building 14, Tom Garner (L) and Maris Lapins try out a cockpit simulator. The cockpit is being used to test and demonstrate software for the Simulation/Systems Development Laboratory, which is scheduled to go into operation early next year. Garner is manager—Simulation Support Services; Lapins is deputy director—Corporate Development Labs.

In this particular test, the cockpit was equipped with the software and instruments of the F-14 Tomcat. The photo was taken inside the laboratory's round dome; computer-generated visual scenery is projected on the dome's walls. Lapins is about to "land" the plane on the aircraft carrier *Nimitz*.

A New Guide For Travelers

When planning your next business trip, consult the new Grumman hotel directory offered by Grumman's Travel Operations. The directory can be your guide to a number of hotels that offer quality accommodations at reasonable prices.

To request your copy, write Josephine Brune, A05-117.

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On your next business trip, in addition to the Holiday Inn, you can stay at a Quality Inn, Clarion Hotel or Comfort Inn and take advantage of the government rate hotel program. This program offers Grummanites a variety of room and meal discounts.

The hotels recommend that any employee traveling on official government business should carry proof of their status. Travel Operations has I.D. stickers available that can be affixed to the back of any credit card. This sticker will instantly identify you as a cost reimbursable contractor's employee.

In addition, Travel Operations is offering a new Grumman hotel directory. It can be your guide to a number of hotels that offer quality accommodations at reasonable prices. To request an I.D. sticker or a hotel guide, write to Josephine Brune, AO5-117.

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